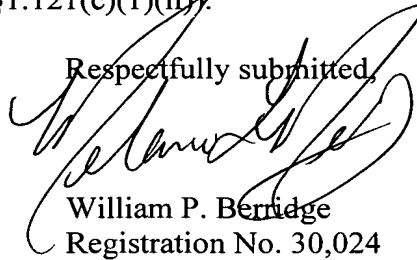


addition, the specification and claims are amended to conform to U.S. practice and remove any multiple dependencies. Prompt and favorable consideration on the merits is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten paragraph (37 C.F.R. §1.121(b)(1)(iii)) and claim (37 C.F.R. §1.121(c)(1)(ii)).

Respectfully submitted,



William P. Berridge  
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WPB:MLM/zmc

Attachments:

Appendix  
Sequence Listing (paper and computer-readable copies)

Date: February 20, 2002

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
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## APPENDIX

## Changes to Specification:

New headings are added before Paragraph [0001].

A new heading is added between Paragraphs [0001] and [0002].

A new heading is added between Paragraphs [0009] and [0010].

A new heading is added between Paragraphs [0021] and [0022].

The following are marked-up versions of the amended paragraphs:

A Sequence Listing is added.

[0050] The protease gene was retrotranscribed from 10 microliters of viral RNA solution and amplified with the Titan One Tube RT-PCR kit (Roche Molecular Diagnostics). Reverse transcription and the first amplification were done with the 3' Prot and 5' RT 3 primers (see below). The reaction at 50°C for 30 minutes was followed by a denaturing step at 94°C for 5 minutes then 40 cycles (30 seconds at 94°C, 30 seconds at 55°C, 90 seconds at 68° C), and finally at 68°C for 7 minutes. The step PCR stage was done with 5 microliters of the product of the first stage with primers 3' RTD and 5' Prot 2.1, with 5 minutes denaturing at 94°C, followed by 30 cycles (30 seconds at 94° C, followed by 30 cycles at 55°C, and 30 seconds at 72° C) and finally 10 minutes at 72°C. The primer sequence is the following:

3' Prot: CAGGGGCTGACACCAACAGCACCCCC (SEQ ID NO: 1)

5' RT 3: CCATTTTTTCACAGATCTCTTTTAATGCCTC (SEQ ID NO: 2)

3' RTD: ATGTGGGGGTATTATAAGGATTT (SEQ ID NO: 3)

5' Prot 2.1: GAAAGAAGCCCCGCAACTTC (SEQ ID NO: 4)

[0063] (a) position 45:

A probe having for example 9 to 25 nucleotides (preferably distributed symmetrically about the mutated codon AGA) whose sequence is included in one of the following sequences:

ATTACACTCCAAGAATAGTAGGGGG (SEQ ID NO: 5)

ATTATAGCCCAAGAATAGTAGGGGG (SEQ ID NO: 6)

ATTATAGTCCAAGAATAGTAGGGGG (SEQ ID NO: 7)

ATTATACCCCAAGAATAGTAGGGGG (SEQ ID NO: 8)

ATTATAGTCCAAGAATAGTAGGAGG (SEQ ID NO: 9)

ATTATACCCCAAGAATAGTAGGAGG (SEQ ID NO: 10)

can be used.

**[0064]** (b) position 54:

A probe having for example 9 to 25 nucleotides (preferably distributed symmetrically about the mutated codon ATG) whose sequence is included in one of the following sequences:

TAGGGGGATTATGAACACCAAAGA (SEQ ID NO: 11)

TAGGGGGATTCATGAACACCAAAGA (SEQ ID NO: 12)

TAGGAGGATTCATGAACACCAAAGA (SEQ ID NO: 13)

TAGGAGGGTTCATGAACACCAAAGA (SEQ ID NO: 14)

can be used.

**[0065]** (c) position 64:

A probe having for example 9 to 25 nucleotides (preferably distributed symmetrically about the mutated codon GTA) whose sequence is included in one of the following sequences:

AAAATGTAGAAGTAAAAGTACTAAA (SEQ ID NO: 15)

AAAATATAGAAGTAAAAGTACTAAA (SEQ ID NO: 16)

AAGATGTAGAAGTAAAGGTACTAAA (SEQ ID NO: 17)

AAAATGTAGAAGTAGAAGTTCTAAA (SEQ ID NO: 18)

AAAATGTAGAAGTAGAAGTCCTGGA (SEQ ID NO: 19)

AAAGTGTAGAAGTAAGAGTGCTAAA (SEQ ID NO: 20)

can be used.

**[0066]** (d) position 84:

A probe having for example 9 to 25 nucleotides (preferably distributed symmetrically about the mutated codon CTC) whose sequence is included in one of the following sequences:

CCCCAATCAACCTCTTTGGCAGAAA (SEQ ID NO: 21)

can be used.

**[0067]** (e) position 90:

A probe having for example 9 to 25 nucleotides (preferably distributed symmetrically about the mutated codon ATG) whose sequence is included in one of the following sequences:

GCAGAAATATTATGACAGCCTTAGG (SEQ ID NO: 22)

GCAGAAATATTATGGCAACCTTAGG (SEQ ID NO: 23)

GCAGAAATGTTATGACAGCTTTAGG (SEQ ID NO: 24)

GCAGAAATATCATGACAGCCTTGGG (SEQ ID NO: 25)

GCAGAAACATTATGACAGCCTTA (SEQ ID NO: 26)

can be used.

#### Changes to Claims:

The heading is changed as follows:

#### CLAIMS WHAT IS CLAIMED IS:

The following are marked-up versions of the amended claims:

4. (Amended) Method according to Claim 1 ~~any of the foregoing claims~~, wherein, to detect a mutation of the protein sequence of the protease, a corresponding mutation is sought in the nucleotide sequence of the gene of said protease.

7. (Amended) Nucleotide probe usable in the method according to Claim 1 ~~any one of Claims 1 to 5~~, comprising, as a minimum sequence, a sequence chosen from the group comprised of:

CCA AGA ATA for a mutated form of position 45.

CCA AGA GTA for a mutated form of position 45.

CCT AGA ATA for a mutated form of position 45.

TTT ATG AAC for a mutated form of position 54.

TTT ATG AAT for a mutated form of position 54.

GAA GTA AAA for a mutated form of position 64.

GAA GTA GAA for a mutated form of position 64.

AAC CTC TTT for a mutated form of position 84.

ATT ATG ACA for a mutated form of position 90.

ATC ATG ACA for a mutated form of position 90,

possibly supplemented by the nucleotide sequence of an adjacent region of the gene of said protease, on either side of the minimum sequence,

(b) a nucleotide sequence equivalent to a sequence defined in (a), and

(c) a sequence complementary to a sequence defined in (a) or in (b).

11. (Amended) Method according to Claim 8 ~~any of Claims 8 to 10~~, wherein, to detect a mutation of the protein sequence of the protease, a corresponding mutation is sought in the nucleotide sequence of the gene of said protease.